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On Terms

Comparing Humans to Other Species: We're Animals and They're Not Infrahumans

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Behaviorists study a variety of creatures (Grossett et al., 1982), and frequently relate experiments conducted with other species to the analysis of human behavior. In doing so, more than a few writers inappropriately contrast "animal" or "infrahuman" research with "human" research, and compare "humans" with "animals" or "infrahumans." For example, a quick reading of articles published in the Spring 1983 issue of *The Behavior Analyst* indicated that the term "human" (or its plural) was placed in comparative juxtaposition with "animal" or "infrahuman" (or their plurals) at least nine times (pages 1, 29, 31, 32, 57, 59, 61, 66, and 108).

Comparing "humans" to "animals" is grammatically as well as biologically incorrect. Unless one accepts *homo sapiens*' special creation or Aristotle's Great Chain of Being—and few scientists do—humans are nothing if not animals. Thus "animals" is a generic (class) noun that encompasses "humans," and the two can be appropriately contrasted only when the former is modified by "other" (Blumenthal, 1972). The same holds true, of course, with respect to the relation between "animal research" and "human research" and similar variations.

While it is grammatically appropriate to contrast "humans" and "infrahumans," doing so rests upon a peculiar view of nature, one that acknowledges *homo sapiens* as somehow generally superior to the less-than-human ("infrahuman") species with which comparison is being made. Neither evolutionary biology nor behavioral psychology offers substantial support for such a view. Though some have argued since the time of Charles Darwin that humans are the supreme product of evolution, the last and best of a linear series of life forms that can be rank-ordered by degrees of perfection, this conception is patently false. Evolution is a branching, not linear, process (as Hodos and Campbell [1969] remind us, common laboratory animals were never ancestral to humans), and a species is an evolutionary success only by virtue of surviving. Neither complexity, size, nor the ability to alter the environment is a meaningful index of evolutionary progress or fitness. Therefore it makes no sense to argue that the rats, pigeons, and monkeys we study are biologically "inferior" to us.

Nor does it appear that most behavioral psychologists would contend that nonhumans are in a general sense behaviorally inferior. While human behavior certainly is in some respects unique, Skinner (e.g., 1938) has long and persuasively argued that the principles of operant conditioning have broad phylogenetic application and that studies of nonhumans can consequently reveal much about the behavior of our own species. To the extent that this is true, labelling nonhumans as "infrahumans" is an anthropocentric error.

In view of the foregoing, it appears that the term "infrahumans" has no rightful place in the vocabulary of behavioral scientists. When humans are compared to other species, the latter should be collec-

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tively designated as "other animals" (not simply as "animals") or as nonhumans, a term seemingly free of the misleading connotations associated with "infrahumans."

While adopting this terminological convention may appear without significance, verbalizations that imply that we humans are somehow fundamentally different from other living things are difficult to defend empirically. Furthermore, and perhaps more importantly, writers who have stressed the uniqueness of humans have historically expressed this uniqueness in terms of the peculiar psychic attributes of our species. It was the *nous* that set humans apart from other animals in Aristotle's chain, and it is one or another variant of the *nous* that cognitive psychologists have unprofitably pursued for the last century. If we behavioral psychologists do not care to join that chase, our spoken and written words should unflinchingly emphasize that humans are a part of the natural world—animals—whose actions can be studied and explained through the same methods as other naturally occurring phenomena.

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